REMARKS

In the Office Action, claims 1, 2, 4-9, 11, 12, and 14-20 were rejected. Claims 3 and 13 were objected to. Claims 10 and 21-26 were allowed. By this Response, Applicants have amended claims 1, 2, 8, 11, 14, 17, and 19, introduced a new claim 27, and cancelled claims 3, 4, and 9. Claims 1-27 are pending in the present patent application. Reconsideration and allowance of all pending claims are requested in light of the above amendments and the following remarks.

Specification

Applicants respectfully submit that paragraph [0006] was amended to include a clarification regarding the usage of a chemical formulae including parentheses. Paragraphs [0008], [0009], [0010], [0023], [0025], [0026], [0032], [0034], [0038], [0040] were amended to include degree symbols. Paragraph [0046] has been amended to overcome the deficiency of a blank in the paragraph.

Claim Objections

Claims 14, 17, and 19 were objected to as containing missing degree symbols. The degree symbols are now incorporated into the claims.

Rejections Under 35 U.S.C. § 112

Claim 11 was rejected as wrongly dependent on claim 18. Claim 12 was rejected as being indefinite for failing to particularly point out and distinctly claim its subject matter. Claims 14-20 were rejected, as the specification said to fail in enabling these claims.

The dependency of claim 11 has been corrected. The specification was amended to clarify the meaning of chemical formulae used in the disclosure with parentheses including recited elements. As used in the application, chemical formulae having two elements included within a parentheses, implies that at least one of the elements need to

be present in the material. Applicants believe with the clarification inserted into the specification, the rejection of claim 12 and its dependent claims are obviated.

Claims 14, 17, and 19 were amended to incorporate "AB_3O_6:Ce, Mn, wherein A is at least a rare earth element other than cerium," as suggested by the Examiner. The claims were also amended to include the missing degree symbols. Amended claim 14 and its dependent claims 15 and 16, amended claim 17 and its dependent claim 18, and amended claim 19 and its dependent claim 20 are believed to be patentable with the incorporation of these amendments to the claims.

Rejections Under 35 U.S.C. § 102(b)

Claims 1, 2, and 4 were rejected as being anticipated by an article by Peters et al. (hereafter "Peters"). Claims 14 and 15 were rejected as being anticipated by Looye et al., U.S. Patent No. 4,319,161 (hereafter "Looye"). Anticipation under 35 U.S.C. § 102 requires a showing that each limitation of a claim is found in a single reference, practice or device. *In re Donohue*, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985).

Claim 1 is amended to include the allowable subject matter from claim 3. The amended claim recites a phosphor composition including a material having a formula of AB_3O_6:Ce, Mn, wherein A is at least a combination of gadolinium and yttrium. Peters discloses a phosphor of the kind GdB_3O_6:Ce, Mn. Peters does not disclose or suggest a phosphor composition including a material having a formula of AB_3O_6:Ce, Mn, wherein A is at least a combination of gadolinium and yttrium. Therefore, Applicants submit that amended claim 1 and its dependent claims 2, 5, 6, and 7 are in condition for allowance.

Amended claim 14 recites a method to make a phosphor, the method including the steps of mixing oxygen-containing compounds of: (1) boron; (2) at least a rare-earth metal other than cerium; (3) cerium; and (4) manganese to form a mixture; and firing the mixture in a reducing atmosphere at a temperature in a range from about 900°C to about

1300°C for a time sufficient to convert the mixture to the a phosphor, wherein the phosphor comprises a material having a formula of AB_3O_6:Ce,Mn, wherein A is at least a rare-earth metal other than cerium.

Looye does not disclose a method of making a phosphor wherein the phosphor comprises a material having a formula of AB_3O_6:Ce,Mn, wherein A is at least a rare-earth metal other than cerium. On the contrary, Looye discloses a method to make phosphor of the kind AB_5O_{10}:C. Thus, the reference does not disclose each and every element of amended claim 14.

Applicants thus respectfully submit that amended claim 14 and its dependent claim 15 are not anticipated by Looye. Favorable reconsideration is requested.

Rejections Under 35 U.S.C. § 103(a)

Claims 5-9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Peters. For a *prima facia* case of obviousness, the Examiner must set forth the differences in the claim over the applied reference, set forth the proposed modifications of the reference, which would be necessary to arrive at the claimed subject matter, and explain why the proposed modification would be obvious.

Amended claim 1 is patentable for reasons presented above. Claims 5, 6, and 7 depending from claim 1 are patentable for the same reasons.

Claim 8 was amended to recite a phosphor blend including a material having the formula of $(Gd_{1-x-y}Ce_xMn_z)B_3O_6$; wherein $0 < x, y, z < 1$; $0 < 1-x-y < 1$; and $(2/3)\ z \leq y \leq z$. As recognized by the Examiner, none of the cited references disclose, teach, or suggest a phosphor blend of the kind. Therefore, claim 8 is believed to be patentable. Favorable reconsideration is requested.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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